

Summary of Safety and Effectiveness  
for the  
Natural Bridge LP Transverse Connectors

This safety and effectiveness summary for Natural Bridge LP Transverse Connectors is provided as required per Section 513(i)(3) of the Food, Drug and Cosmetic Act.

**1. Submitter :**

K2M, Inc.  
751 Miller Drive SE,  
Suite F1  
Leesburg, VA 20175

**Contact Person :**

Richard W. Woods  
K2M, LLC  
751 Miller Drive SE, Suite F1  
Leesburg, VA 20175  
Telephone: 703-777-3155

Date Prepared: 10/11/07

JAN - 3 2008

**2. Tradename:** Natural Bridge LP Transverse Connectors

**Common Name:** Transverse Connectors  
**Classification Name:** Pedicle Screw Spinal System (21 CFR 888.3070(b)(1))  
Spinal Interlaminar Fixation Orthosis (21 CFR 888.3050)

**3. Predicate or legally marketed devices which are substantially equivalent :**

- K2M Natural Bridge Transverse Connectors (510(k) K052398, K042635, K052404, K052405)

**4. Description of the device:**

The Natural Bridge LP Transverse Connectors are devices intended to be used in conjunction with K2M's currently available pedicle screw and/or hook systems for stabilization of the spine. The connectors are available in a variety of sizes to match more closely the patient's anatomy.

**Materials:** The devices are manufactured from Ti6Al-4V ELI alloy per ASTM and ISO standards.

**Function:** The devices are designed for attachment to the rods to enhance the torsional stability of the implanted spinal construct.

**5. Intended Use:**

The Range Spinal System is a non-cervical spinal fixation device intended for posterior, non-pedicle fixation for the following indications: degenerative disc disease ( DDD ) (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies ); spondylolisthesis; trauma ( i.e. fracture or dislocation ); spinal stenosis; curvatures ( i.e. scoliosis, kyphosis; and/or lordosis); tumor; pseudoarthrosis; and failed previous fusion.

The Range Spinal System is also intended for non-cervical pedicle screw fixation for the following indications: trauma ( i.e. fracture or dislocation ); spinal stenosis; curvatures ( i.e. scoliosis, kyphosis; and/or lordosis); tumor; pseudoarthrosis; and failed previous fusion. It is also indicated for the treatment of severe spondylolisthesis ( grades 3 and 4 ) of the L5-S1 vertebra in skeletally mature patients receiving fusion by autogenous bone graft having implants attached to the lumbar and sacral spine ( L3 to sacrum ) with removal of the implants after the attainment of a solid fusion.

**6. Comparison of the technological characteristics of the device to predicate and legally marketed devices :**

The K2M Natural Bridge LP Transverse Connectors are considered substantially equivalent to K2M's original Natural Bridge Transverse Connectors. They are manufactured from the same material, identical in their indications for use and there is no significant difference in performance as demonstrated by biomechanical testing.



## DEPARTMENT OF HEALTH &amp; HUMAN SERVICES

Public Health Service

JAN - 3 2008

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

K2M, Incorporated  
c/o Mr. Richard Woods  
Senior Vice President Engineering  
751 Miller Drive SE, Suite F-1  
Leesburg, VA 20175

Re: K072914

Trade/Device Name: Natural Bridge LP Transverse Connectors  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: Class II  
Product Code: MNI, MNH  
Dated: December 12, 2007  
Received: December 13, 2007

Dear Mr. Woods:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

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This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Center for Devices and Radiological Health's (CDRH's) Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding postmarket surveillance, please contact CDRH's Office of Surveillance and Biometric's (OSB's) Division of Postmarket Surveillance at (240) 276-3474. For questions regarding the reporting of device adverse events (Medical Device Reporting (MDR)), please contact the Division of Surveillance Systems at (240) 276-3464. You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Mark N. Melkerson  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known):

Device Name: Natural Bridge Transverse Connectors (Range Spinal System)

Indications for Use:

The Range Spinal System is a non-cervical spinal fixation devices intended for posterior, non-pedicle fixation for the following indications: degenerative disc disease ( DDD ) (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies ); spondylolisthesis; trauma ( i.e. fracture or dislocation ); spinal stenosis; curvatures ( i.e. scoliosis, kyphosis; and/or lordosis); tumor; pseudoarthrosis; and failed previous fusion.

The Range Spinal System is also intended for non-cervical pedicle screw fixation for the following indications: trauma ( i.e. fracture or dislocation ); spinal stenosis; curvatures ( i.e. scoliosis, kyphosis; and/or lordosis); tumor; pseudoarthrosis; and failed previous fusion. They are also indicated for the treatment of severe spondylolisthesis ( grades 3 and 4 ) of the L5-S1 vertebra in skeletally mature patients receiving fusion by autogenous bone graft having implants attached to the lumbar and sacral spine ( L3 to sacrum ) with removal of the implants after the attainment of a solid fusion.

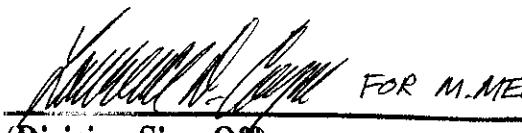
Prescription Use X  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-the-counter Use     
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED).

Concurrence of CDRH, Office of Device Evaluation (ODE)

  
FOR M. MELKERSON  
**(Division Sign-Off)**  
**Division of General, Restorative,  
and Neurological Devices**

510(k) Number K072914